McGILL UNIVERSITY
MONTREAL

Division of Industrial and
Cellulose Chemistry

19 January, 1948

Dr. Joshua Lederberg,
Assistant Professor of Genetics,
The University of Wisconsin,
Madison 6, Wisconsin

Dear Dr. Lederberg,

I am sorry to say that, in the ten years since I was actively engaged with fructosides, what small samples I retained are now probably lost and I think it hardly worth writing to Professor Scattergood in the Sugar Research Laboratory, Massachusetts Institute of Technology, Cambridge, Mass. where I left them. I am sending on one or two of the relevant reprints.

As far as I know no β-fructofuranoside has yet been obtained in a crystalline condition, although it is easy to get an equilibrium 50% crude mixture with the α isomer. The simplest member is the methyl fructofuranoside equilibrium which can readily be isolated as a sirup by shaking finely powdered fructose with anhydrous methyl alcohol containing 1% of anhydrous hydrogen chloride until the rotation ceases to be levo-rotatory. Prompt neutralization of the solution at this time followed by evaporation gives the sirup. If this sirup is cautiously dried and dissolved in another alcohol, say benzyl alcohol, containing 1% of hydrogen chloride, a swift transformation to the benzyl equilibrium mixture will take place. Such sirups, of course, are crude and contain variable amounts of fructopyranosides. Sucrose is the only readily accessible β-fructofuranoside.

Sincerely yours,

Clifford B. Purves